SYNOPSIS

Socio-Economic Dimensions of Betel Leaf Cultivation in Kakdwip Subdivision, South 24 Parganas, West Bengal

Submitted by

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CONCEPTUAL FRAMEWORK:

The deep green leaf of Betel vine, well known as *PAAN* in India, is quite popular for its unique appealing shape, aroma, and psycho-stimulating effect. It is consumed on a wide scale throughout Southeast Asia, some Pacific islands and many Middle Eastern countries for its bio-chemical properties and stimulating effect.

Chewing of Betel quid implies great symbol of culture and has been reconciled within the cultural fabric of society since a very long period. It is a great symbol of cultural ethos of India and carries symbolic connotations of Indian society.

The plant of betel vine is essentially a perennial creeper, typically grows entwining a strong support such as a stick or a tree, propagated asexually through saplings. It belongs to the *Piperaceae* family (Scientific name: *Piper Betel L.),* which is a Black Paper family. Betel leaf grows well in moist condition. Traditional belief regarding the origin of Betel leaf has been that its native range was centered around Java, where it was allegedly claimed to be found growing wildly. However, recent studies have confirmed the absence of wildly growing Betel vine from Java. The origin of Betel vine, till date, remains unresolved due to lack of proper written or non-written evidences. But the geographical extension of Betel chewing is marked from the tip of South Africa to West Pacific. Archaeological evidences like dental remains, fossilized plant products, objects from burial sites suggest about the possible culture of betel chewing among the South-East Asian countries.Ethno-historic evidence shows presence of culture of Betel chewing in many nations of Southeast Asia e.g. China, Sumatra, Java, Indonesia, India, Burma, Thailand, Srilanka; some Pacific islands and many middle eastern countries.

The diffusion of betel chewing in the Southeast Asian countries eventuated with the migration of Austronesian speakers. Early history of trade from India to Middle Eastern as well as many Europian countries suggests possible migration and diffusion of betel Leaf and areca nut to these areas but lack of written documents as well as non-written evidences like cultural narratives, linguistics characteristics diminishes the propagation of Betel chewing.

Today India remains in one of the largest producer and exporter of betel leaf. According to a report published by Ministry of Agriculture, India (2005) betel leaf alone produces a sum of 100 crores revenue per annum from West Bengal, making it the 3rd largest producer in India in Betel leaf. Among the districts of West Bengal, South 24 parganas remains on the third position after Midnapore (undivided) and Howrah.

The study seeks to find out about various cultural aspects of betel chewing in the marginal administrative unit of Kakdwip Subdivision and also tries to establish some probable causes behind how the cultivation practice of betel vine migrated here and became so popular in this ecotonal zone of marine and land, poorly suitable for such crop, that now it is one of the most important source of income to this area. The study also tries to find out the level of commercialization, profitability, scale of finance of betel leaf cultivation in the study area.

OBJECTIVE :

The objective of this work deals with social as well as economic aspects of betel leaf cultivation and marketing in Kakdwip Subdivision, South 24 parganas.

Betel leaf contributes a major part of the gross earnings of Kakdwip, hence the main objective of the study is to find out how this business is controlling the economy of kakdwip and why this particular economy has flourished in a small and marginal place like kakdwip.

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The study also seeks to find out the role and impact of the middlemen associated with betel leaf marketing and distribution. Middlemen are the intermediate persons between the cultivators and market entrepreneurs, and play an important role in marketing price of betel leaf. Hence, they cause a remarkable cut down in the profit of the cultivators. Like in any other economic activities, these middle men control the distribution and price of betel leaf in peak period as well as in lean period. Therefore, it is necessary to eliminate the middleman, if the cultivators have to sustain economically. Besides, proper govt. Policies should be introduced to increase the interest of people in this business, or the cultivation practice will soon be extinct. Alternative uses of betel leaf or allied products may be introduced to draw the interest of the youth and educated people in betel leaf culture. Apart from this, the followings are some primary objectives of the study –

- To access the various cultural dimensions of betel leaf cultivation.
- To evaluate the vindicates of betel leaf cultivation in coastal region
- To find out the level of commercialization and contribution to the total earning of study area.
- To identify the potentialities of earnings from alternative uses of betel leaf.
- To find out the problem regarding the development of betel leaf cultivation and business.

DATABASE:

Primary data has been collected through questionnaires survey and field observation at grass root level.

Secondary data has been collected from different sources:

Regional office of the ADA (Additional Director of Agriculture), District Horticulture office, Bureau of Applied Economics and Statistics, Census Department of India, DARE (Department of Agricultural Research and Education), ICAR (Indian Council of Agricultural Research), Survey of India, Regional Meteorological Department, NRSC (National Remote Sensing Centre), United States Geological Survey etc.

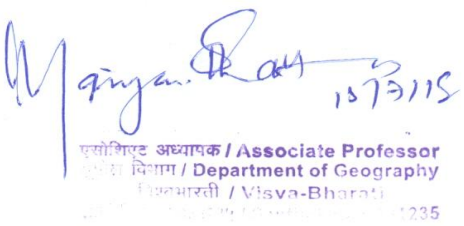
METHOD :

The objective of this dissertation deals with cultural dimension of betel leaf cultivation and marketing in Kakdwip Subdivision, South 24 parganas. Thus, a specific way and method to reach my goal has been followed.

PRE-FIELD METHODOLOGY:

In the pre-field section, a framework on the concerned subject was prepared, which helped in approaching the study in a systematic way.

Then, detailed questionnaire was prepared for cultivator and middleman to collect the data under necessary parameters.



Different administrative maps were collected from concerned offices.

ON-FIELD METHODOLOGY:

Sampling techniques: Sample households were selected by adopting the perspective methods out of the village whose inhabitants are engaged in betel leaf cultivation and marketing.

Collection of data: For collecting the data, I had to fill up the questionnaires, which were made in the pre-field section, through personal interview. In this process, I followed a rigid procedure to get the answers to a set of pre-conceived questions.

Type of data: Data were collected on aspects like –age, caste and sub-caste, education, number of family members, period of occupation, previous occupation, variety of betel leaf cultivated, production amount and cost of betel leaf production, amount of land ownership, other source of income, rituals followed by them in this context, role of irrigation and government in betel leaf cultivation etc.

POST-FIELD METHODOLOGY:

Data processing: After collection of primary and secondary data it is transferred to the master sheet in respective columns. The data had to be compiled and generalized for the sake of tabulation and presentation.

Tabulation of data: From the master sheet again final tables were prepared on various aspect related to this dissertation.

Presentation of data: Collected data will be represented by different suitable cartographic techniques. Compiled data will be analyzed through appropriate statistical technique and maps will be prepared with the help of GIS software.

Data interpretation: After all tabulation and diagram making, these aspects will be interpreted emphasizing on two basic questions –"why" and "how".

SELECTION OF STUDY AREA :

When we generally talk about the cash crops of the India or even on the global banner, the names, which generally rise up, are the tea, coffee, oil seed etc. However, there is another crop, the Betel Leaf that is not mentioned frequently but has great economic potentialities and is also a component of Indian culture. Today betel leaf is one of the important cash crops of India. The gross annual earnings from the betel leaf and allied products contribute a major portion to the national income. Within India, West Bengal produces approximately 70% of the total production. 'MITHA PATA' (sweet leaves) and 'BANGLA PATA' are the two Varieties of betel leaf popular in the international market. Within West Bengal, Kakdwip is one of the important production and marketing centers of betel leaf. Cultivators from a wide hinterland come to the market & distribution centre with their produce, and the

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raw material is then distributed throughout the nation and to different countries. It is one of the primitive primary activities of this region and generates considerable amount of revenue for this administrative unit.

Despite the importance and potentials, the practice of betel leaf cultivation is facing severe loss due to several reasons. As a result, farmers are losing interest in this business the crop is gradually fading away from this region. Yet, no such study has been done to address these problems so far. The present study on this subject is the first of its kind for this region.

SURVEY OF PREVIOUS LITERATURE :

Literature survey is crucial to any research work. It helps to buildup proper idea about the theme of enquiry and also unveils the existing gaps. For this particular work a number of previous literature, related to core theme of enquiry as well as peripheral topic, has been surveyed.

- Ahuja, S. C. & Ahuja, U. (2011) in their article entitled "Betel leaf and betel nut in India: History and uses" gives a detailed appraisal for various traditions and customs related to the consumption and use of the popular duo - Betel leaf & Areca nut. They also talks about how the mastication practice of betel quid came to India and became an essential part of its tradition. Beside evaluating various epigraphic and philological factum the authors also discuss in detail about different uses of betel leaf and areca nut.

- Guha, P. (2006) in his article betel leaf: "THE NEGLECTED GREEN GOLD OF INDIA" gives some basic statistical information regarding the various aspects of production of betel leaves in India wherein West Bengal alone accounts for c.66% of the total production of the country. He reports on some of the problems associated with the production of betel leaves in India like wastage of the leaves during storage, transportation and the glut season. Besides, non disposal of the rotten leaves also creates environmental pollution and health hazards. He recommends certain unique ways of doing away with this problem that includes extraction of essential oil from the surplus betel leaves that can be used as an industrial raw material for manufacturing medicines, perfumes, mouth fresheners, tonics, food additives etc.

- Haider, R. M., Khair, A. et al (2013) in their article "Indigenous management practices of betel-leaf (piper betel L.) cultivation by the Khasia community in Bangladesh" writes about traditional cultivation method of betel leaf by an indigenous community known as Khasia. Living within the reserve forest, the Khasia community practices unique traditional way of cultivation, which is also very suitable for the region and at the same time environmentally sustainable.

- Hossain, F., Anwar, M. et al (2017) writes in their paper, entitled "Uses impact of betel leaf (Piper Betle L.) on public health" about various effects of betel leaf consumption along with areca nut, tobacco, slaked lime

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etc. On contrary of the traditional belief regarding the hazardous effect of betel leaf consumption, they accounts for the positive aspects of betel chewing on human health when consumed in appropriate way.

- Jana, B. L. (1995) in his book: *GRAM BANGLAR ARTHAKARI PHASAL-PAAN (In Bengali).* "Betel Leaf: A Cash Crop of Rural Bengal" presents information regarding betel leaf cultivation. The origin and history of betel leaf in different countries, place of betel leaf in society and literature, its herbal properties, various problems regarding betel leaf cultivation –various diseases, pest attack; probable measures etc. Besides he also gives some statistical account on the cultivation status of betel leaf in different district of West Bengal, income and expenditure regarding boroj making, betel leaf production and marketing. In his book, he also accounts for the economic importance of betel leaf cultivation in rural India.

- Kaleeswari, V. and Sridhar, T. (2013) in their article "A study on betel vine cultivation and market crisis in Karur district" evaluates the cultivation practice of betel vine in Karur district and states about various problems associated with it as well as the marketing system of the produce. They show how problems like pest attack, fluctuation in market price, unregulated market, inadequacy of finance, unskilled labour etc. are damaging the entire production system and thereby cutting down the potential generation of revenue and income.

- Mishra, M. (1999) in his unpublished thesis, entitled "Economics of production and marketing of betel vine Nowgaon block of Chhatarpur district (M.P)", discussed about various economic aspects of this crop like productivity of resources used, capital needs for cultivation. Apart from that, the researcher gives a detailed account regarding production cost, profitability and scale of finance for the cultivation of betel leaf.

- Vernier, F. (2012) in her article "Agriculture in coastal areas: environmental issues, impact and regulation tools" discusses about various aspects of coastal zone cultivation. The author showcases some issues related to impact of agriculture on coastal land as well as on the environment and provides some suggestion to mitigate the effects of the same with the help of ICZM (Integrated Coastal Zone Management) scheme.

- Zumborich, J. T. (2008) in his article "The origin and diffusion of betel chewing: a synthesis of evidence from South Asia, Southeast Asia and beyond" makes an attempt to revel the origin of betel chewing and also how it diffused over the vast geographical area of Southeast Asia and beyond. He examines some important archaeo-botanical evidences to develop explanation about the existence of the betel chewing habit in Southeast Asian countries like Vietnam, Java, India, Burma, Srilanka etc. In this seminal work the author also contradicts the traditional belief of origin of betel chewing culture to be centering Java.

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RELEVENCY OF THE STUDY :

To the academician:

Although a traditional item of agricultural produce, betel leaves have of late attracted the attention of the R & D units of academic institutions for harnessing its traditionally known medicinal properties at the industrial scale. Besides attempts are also being made to extract its juice and combine it with juice extracts of other fruits for commercial purposes.

To the planner:

Betel leaf is a revenue earning produce being managed at the household level through traditionally acquired skills. Planners can take note of its potential for furtherance of sustainable economic gains of the households.

To the farmer:

Betel leaf production is a traditional practice among the farmers of Kakdwip. Proper planning for packaging and marketing of the produce will go a long way in making this practice economically remunerative.

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